

CLAIMS

What is claimed is:

5 1. A method for sizing and scaling a display on a computer monitor, the method comprising the steps of:
 displaying an image on a computer monitor in a display area, the display area having a first dimension and a second dimension and the image having a third dimension and a fourth dimension, the third dimension and the fourth dimension defining an aspect ratio, the image being displayed in logical groupings of elements viewable in the image;
 adjusting the first dimension only of the display area; and
 rescaling the third dimension and the fourth dimension based upon the adjustment to the first dimension to maintain an aspect ratio between the third and fourth dimensions.

10 2. The method of claim 1, comprising the further steps of adjusting the second dimension of the display area and adjusting the image by changing a number of logical groupings viewable in the image.

15 3. The method of claim 2, wherein the image is displayed by whole groupings only.

20 4. The method of claim 1, wherein the first and third dimensions are vertical dimensions, and the second and fourth dimensions are horizontal dimensions.

25 5. The method of claim 1, wherein adjustments to dimensions of the display area are made via a virtual tool actuatable by an operator.

30 6. The method of claim 1, comprising the further step of defining the logical groupings of the elements viewable in the image.

7. The method of claim 1, wherein the image represents a physical system and the logical groupings represent components positioned within the physical system.

5 8. The method of claim 7, wherein the logical groupings are aligned with the first dimension of the display area.

10 9. The method of claim 1, wherein the image is constructed based upon data collected from components coupled to one another and to a workstation via a data network.

15 10. A method for displaying an image on a computer workstation, the method comprising the steps of:
defining logical groupings of elements viewable in the display;
displaying the image within a display area, the display area having first height and width dimensions, the image having second height and width dimensions defining an aspect ratio;

20 changing one of the first height and width dimensions of the display area;
automatically rescaling the second height and width dimensions of the image based upon the change in only one of the first height or width dimension to maintain the aspect ratio of the image.

25 11. The method of claim 10, wherein a number of logical groupings of elements is displayed in the image in accordance with the dimensions of the display area.

12. The method of claim 11, wherein only whole logical groupings are displayed.

30 13. The method of claim 12, comprising the step of changing the number of logical groupings displayed in the display area based upon the change made to the dimensions of the display area.

14. The method of claim 13, wherein the display snaps to a new number of logical groupings upon changes in the number of logical groupings displayed.

5 15. The method of claim 10, comprising the steps of changing the other of the first height and width dimensions of the display area, and changing the number of logical groupings displayed in the display area based upon that change.

10 16. The method of claim 10, wherein the image comprises a predetermined number of logical groupings, and wherein less than the predetermined number of logical groupings is displayed in the image viewable by the user.

15 17. The method of claim 16, wherein a number of logical groupings is displayed in accordance with the dimensions of the display area and the aspect ratio.

20 18. The method of claim 17, comprising the further step of displaying a scroll bar for allowing different sets of logical groupings to be displayed.

25 19. A method for displaying an image of a physical system, the method comprising the steps of:
acquiring data from components of the physical system via a data network;
generating an image of the physical system in a display area based upon the data, the display area having first and second dimensions and the image having third and fourth dimensions;
changing the first dimension;
rescaling the third and fourth dimensions based upon the change to the first dimension to maintain an aspect ratio between the third and fourth dimensions.

30 20. The method of claim 19, wherein the image includes only whole logical groupings of representations of the components.

21. The method of claim 20, comprising the steps of changing the second dimension of the display area, and automatically changing a number of logical groupings viewable in the display area based upon the change in the second dimension.

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22. The method of claim 21, wherein the logical groupings are aligned parallel to the second dimension of the display area.

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23. The method of claim 19, wherein the first and third dimensions are height dimensions, and the second and fourth dimensions are width dimensions.

24. The method of claim 19, comprising displaying descriptive indicia in the image identifying at least one of the components based upon the data.

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25. The method of claim 24, comprising displaying status indicia in the image based upon the data.

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26. An image display comprising:
a display area having first and second dimensions;
a virtual tool for adjusting the first and second dimensions;
an image viewable in the display area and having a third dimension parallel to the first dimension, and a fourth dimension parallel to the second dimension, both the third and fourth dimensions being automatically rescaled based only upon an adjustment in the first dimension to maintain an aspect ratio between the third and fourth dimensions.

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27. The image display of claim 26, wherein the image includes representations of logical groupings of elements, and wherein the elements are displayed only by whole logical grouping.

28. The image display of claim 27, wherein the number of logical groupings displayed is changed based upon changes in the second dimension of the display area.

29. The image display of claim 27, including a scroll bar for selecting sets of logical groupings viewable in the display area.

5 30. The image display of claim 27, wherein the first and third dimensions are height dimensions, and the second and fourth dimensions are width dimensions

20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1